

The background of the entire page is a light, monochromatic photograph of tall, thin grasses or reeds. The blades are long and slender, with some showing the feathery seed heads. The lighting is soft, creating a gentle, naturalistic feel. The text is overlaid on this background.

# **BULGANA**

## **GREEN POWER HUB**

**Construction Update**

**ISSUE N°13**

**September 2020**

## Terminology:

The scope of works includes 220kV Terminal Station and Interface, 33kV Substation, 15km overhead 33kV line, two (2) 220 /33kV TXs, Battery Energy Storage System (BESS) as well as fifty-six (56) WTGs configured in four (4) Collector Groups (CGs).

**CG 1:** BU 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 & 11;

**CG 2:** BU 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 23, 25 & 26

**CG3:** BU 29, 30, 31, 32, 33, 34, 35, 36, 37, 49, 50, 51, 52 & 53

**CG4:** BU 40, 41, 42, 43, 44, 54, 55, 56, 57, 58, 59, 61, 62, 63, 64, 65, 66 & 67

The Project is also split into groups of activities:

**Terminal Station and Interface** Including civil and electrical installation

**CBoP** (Civil Balance of Plant) including internal roads, Crane Hardstand areas and foundations

**EBoP** (Electrical Balance of Plant) including all electrical works to be prepared before WTGs can be energized (Cable trenches, Substation electrical installation, earthing circuits, etc.) and the Battery Energy Storage System (BESS)

**Wind Turbine Generators (WTG)** including shipping, transport to site, installation and commissioning.

## Progress detail

### Terminal Station and AUSNET Interfaces (100% complete)

- Terminal Station & substation fully energized

### Civil & Structural Balance of Plant (CBoP) Activities (99% complete)

- Internal Roads 100% complete
- Crane hardstand areas 100% complete
- WTG foundations 100% complete
- Backfill & grout 100% complete
- O&M Building 100% complete
- External local road final upgrade in final stages of completion;

### Electrical & SCADA Balance of Plant (EBoP) Activities (100% complete)

- 33kV Cable delivery & installation 100% complete
- Control Room construction and commissioning 100% complete
- Switchyard & Reactive Plant 100% complete
- BESS manufacture and installation 100% complete
- Harmonic Filters and installation 100% complete

### Wind Turbine Generator (WTG) Activities: (overall 100%)

- Manufacturing Status (complete): **(100% complete)**
  - Tower (sets) 56/56 complete
  - Nacelles 56/56 complete
  - Drive trains 56/56 complete
  - Hubs 56/56 complete
  - Blade (sets) 56/56 complete
  - Elevators 56/56 complete
  - Switchgear 56/56 complete
- Shipping Status (complete): **(100% complete)**
- Delivery, Installation, Commissioning & Testing (complete):
  - Delivery 56/56 complete
  - Pre-Assembly 56/56 complete
  - Final Assembly 56/56 complete
  - Mechanical & Electrical Completion 56/56 complete
- Grid compliance testing and ramp-up of generation:
  - Started in May 2020 and ramp-up is ongoing
  - Currently 35 WTGs are fully operational at any one time – remaining turbines will be connected as commissioning progresses

**412,933**  
**12**

Hours worked on site

People on average on site